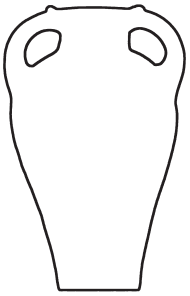
The Minoan Shipwreck at Pseira, Crete



Frontispiece. Yiorgos Klontzas in 2003 with the first hole-mouthed jar (**1**, 03/22) found at the site of the Pseira shipwreck. Photo E. Hadjidaki-Marder.

PREHISTORY MONOGRAPHS 65

The Minoan Shipwreck at Pseira, Crete

by

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To Malcolm H. Wiener

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Preface

This book aims to shed light on a small but bold maritime community on the island of Pseira in the Mirabello Bay, East Crete. The settlement on Pseira was built on a rocky promontory that offered a natural double bay for the protection of ships and was founded in the Final Neolithic period, well before 3000 B.C. The Pseirans were seafarers from earliest times, and many of the town's ordinary needs (including all the pottery) were carried to the island by sea. Early Bronze Age goods from distant sources, such as obsidian from Melos and metals including gold (Betancourt 2003, 68), indicate that Pseira was participating in long-distance trade as early as the Early Minoan (EM) II period. The island was never isolated.

A ship transporting cargo from the coastal region of the Mirabello Bay sank near Pseira in Middle Minoan (MM) IIB, around the second half of the 18th century B.C. This was a time when the Middle Bronze Age palaces had already been built at Knossos, Phaistos, and Malia. The site is 5.5 nautical miles from the Minoan town of Gournia and 2 miles from the smaller settlement at Mochlos. The ship came to rest at a depth of 35–45 m, sufficient to deter all but professional divers; in 2003, when we found the wreck, it had been looted. Fortunately, remains of its large cargo were safely buried in pockets of sand on the rocky bottom. No wood from the hull survived. Nevertheless, the over 140 artifacts that were excavated provide evidence for the seafaring activities of the inhabitants of Pseira; their contacts with the rest of Crete, the Dodecanese, and perhaps western Anatolia; the goods that they traded; the harbors to which they sailed; and hints about the kind of ships that made the trade possible.

The shipwreck is the first and largest MM IIB example to have been found and excavated. The results of the investigation are due to a mixture of skill and good luck and the generosity of the Institute for Aegean Prehistory (INSTAP).

Finding a Minoan shipwreck had been a goal of marine archaeologists for decades, especially for the community of Greek marine archaeologists. Maritime archaeology is particularly expensive because it relies on divers who can work only for a limited amount of time each day and whose lives depend on support personnel and diving equipment. A Greek department of underwater archaeology was founded in the 1970s. There were frequent public declarations that underwater archaeology was essential to the future of the discipline, but adequate funding was always uncertain, and by the year 2000, research projects had slowed to a trickle. The Minoan shipwreck thus would likely never have been found without support from INSTAP.

In 2002, I received an invitation to apply for a grant from INSTAP. The application was successful, and it made possible a first month of exploration in September 2003. Promising results led to additional financial support from INSTAP that allowed an additional survey in June 2004 and excavations and surveys from 2005 to 2009.

The project was conducted by an almost exclusively Greek team. The deep-water geophysical survey in 2003 was conducted in collaboration with George Anastasakis of the Department of Geology, University of Athens. He was accompanied by three assistants: Spiros Maroulakis, Giorgos Sgouros, and Christos Agelopoulos. We had occasional assistance from the diving archaeologist, Miranda-Despina Hinkley, and the marine biologist, Kostas Frangoulis. The 9 m boat used to house the geophysical equipment was the ΑΦΕΝΤΗΣ ΧΡΙΣΤΟΣ Ν.Α.Ν. 162. Also participating in that first year was a deep-diving team led by Yiorgos Klontzas. He and his associates, Kostas Kirsanof and Nikos Golfis, worked from a 20-m wooden sponge-diving boat, ΑΓΙΟΣ ΓΕΩΡΓΙΟΣ Ν.Α.Ν. 92, equipped with a decompression chamber and other equipment.

Klontzas and his team returned in all subsequent years, and his boat became the center from which the survey and eventually the excavation were conducted.

The dedication of all the team members was remarkable. They dived at great depths and withstood uncertainties both about the weather and about continued official tolerance, all for a very modest compensation, the love of the sea, and the chance to participate in a project they would remember forever.

Elpida Hadjidaki-Marder
Phalasarna, Crete
2018

Acknowledgments

The underwater excavation of the Minoan shipwreck at Pseira was a Greek project under my direction during the time I served as deputy director of the Department of Maritime Antiquities in the Ministry of Culture. The project lasted for seven years (2003–2009), and it was funded almost exclusively by the Institute for Aegean Prehistory (INSTAP). Additional contributions came from Michael Marder of the University of Texas at Austin.

The excavation and the publication of the present volume would not have been accomplished without the generous financial assistance of INSTAP and above all the support of Malcom H. Wiener, founder and chief benefactor of the institute to whom this book is dedicated. I am also most grateful to Philip Betancourt, executive director of INSTAP, and Thomas Brogan, director of the INSTAP Study Center for East Crete; it was because of their initiative that the project took place and allowed my childhood dream of finding a Minoan shipwreck to come true.

I have been diving in the Venetian port of Chania in western Crete since I was seven years old, collecting old silverware that seemed to me out of place in the local marine environment. I grew up to become a marine archaeologist and despite specializing in the historical period, I never stopped searching for Minoan harbors and ships.

It finally happened in September 2003, when I saw a Minoan hole-mouthed jar lying half buried on a sandy seafloor at a depth of 41 m, in the straits between Pseira Island and the northeastern coast of Crete. The ensuing excavations were successful because of the highly skilled team of coral divers led by a fearless captain and owner of the diving boat, Yiorgos Klontzas. He served as chief diver and took responsibility for the safety of all diving team members. His associate divers, Kostas Kirsanof and Nikos Golfis, dived once or more each day and provided the airlift for the excavation, underwater voice

communication, and video. They converted to enthusiastic supporters of archaeology and worked day and night with us, seven days a week.

Occasional assistance whenever needed because of strong winds or problems with the airlift was provided by the diving technicians, Kyriakos Kavalaris, Thrasyboulos Hiloudakis, and Vasilis Voyiatzis. The diving club owner and businessman, Nikos Koutoulakis, was an enthusiastic supporter from the beginning who recommended personnel and provided extra diving equipment when we ran short.

The archaeological team in addition to myself consisted of Michael Bendon, Lisa Briggs, Ioanna Damanaki, Chrisi Frangiadaki, Evangelia Frangou, Sofia Frangoulopoulou, Yiorgos Garantonakis, Miranda-Despina Hinkley, Derek Irwin, Lilian Martin,† Mirto Michali, Ioanna Roussia, and Eleftheria Tsoupaki. Diving archaeologist Despina Koutsoumba participated in 2009 as an official representative of the Ministry of Culture, Department of Maritime Antiquities.

The photographers had constant work, as far down as 48 m and on the surface as the finds came up, and their contribution is highly appreciated. They include Ioulios Glambedakis, Nike Marder, Vasilis Mentoyiannis, and Georgos Phillipaios.† Dimitri Markatos assisted with photography and served as legal counsel for the team; we found that we needed his services more than anticipated.

The contribution of Nike Marder was particularly critical, as she took charge of ensuring that the artifacts underwater were photographed systematically in the position where they were found and then cataloged for later reference. She also took many of the photographs immediately after artifacts were brought to the surface and later after cleaning in the museum. Many additional photographs recording artifacts and used for photogrammetry were taken by Vasilis Mentoyiannis. Ioulios Glambedakis was responsible for photographs showing the dig in action. I thank Michel Braunstein for offering use of Plate 2B. Mapping and plotting during the excavations were executed by Dimitris Timologos and Michael Marder. The drawings of the pottery and final maps were produced by Douglas Faulmann, chief artist of the INSTAP Study Center for East Crete. Eleanor Huffman helped with recording and checking artifacts. Conservation of the artifacts was carried out by Stefania Chlouveraki and Matina Tzari of the INSTAP Study Center, and Roula Maninou from the Department of Maritime Antiquities. Mary Betancourt† served as the registrar. Photographs of all the objects for final publication were taken by Chronis Papanikolopoulos, drawings were made by Lily Bonga, and pottery maps were produced by Florence Hsu. I thank all these professionals for their persistence and hard work.

Several diving professionals assisted as volunteers: Christos Agouridis, Kostas Frangoulis, Angelos Maglis, Yiannis Rokas, Marion Soltermann, Yiannis Triantafilidis, Yiorgos Patroudakis, and Eleni Vlazaki. Lianna Kissinger-Virizlay helped with the pottery cataloging on the ship and in the Siteia Archaeological Museum (SM).

Ioanna Hadjidaki volunteered and assisted the team in a variety of tasks, including handling logistics, providing supplies, cooking on the boat, monitoring the basket under the airlift, and helping with photography and the first desalination of the artifacts as they were being recovered from the seafloor. In 2005, she was assisted by Thanasis Kaloyiannis, and in 2006 by Eli Galbraith.

In 2003, a geophysical survey was carried out by George Anastasakis, Department of Geology at the University of Athens, and his three assistants: Spiros Maroulakis, Yiorgos Sgouros, and Christos Agelopoulos. In 2004, Marinos Pittas, an engineer, and his assistant, Panagiotis Matsis, employed a remotely operated vehicle (ROV) assisted by Yiorgos Tzanakis† who provided a video of all ROV transects.

I had the privilege of excavating this shipwreck because of expertise in underwater archaeology, but when the project began I had a great deal to learn about Minoan pottery. In addition to drawing on the knowledge of Philip Betancourt, I benefited greatly from discussions with Honor Frost,† Birgitta Hallager, Eric Hallager, Athanasia Kanta, Alexander MacGillivray, Jennifer Moody, Tom Palaima, Çemal Pulak, Yiannis Sakellarakis, Efi Sakellaraki, Elias Spondylis, Harry Tzalas, and Maria Vlazaki.

Vili Apostolakou, director of the Department of Antiquities of Lasithi, was consistently supportive of the project throughout the years, and she encouraged the artifacts to be exhibited in the museum in Siteia. The Greek Archaeological Council was also supportive of the requests for permits, as were the Greek Ministers of Culture, Michalis Liapis, Antonis Samaras, Petros Tatoulis, Evangelos Venizelos, Yiorgos Voulgarakis, and Minister of Foreign Affairs, Dora Bakoyianni.

The harbor police from Hagios Nikolaos and Siteia assisted in numerous ways. Many residents of Mochlos provided help and support whenever it was needed.

Finally, I am most grateful to my parents-in-law, Herbert and Norma Marder, for reading the manuscript and making suggestions.

Elpida Hadjidaki-Marder

List of Abbreviations

cm	centimeter(s)
d.	diameter
dim.	dimension
EM	Early Minoan
est.	estimated
g	gram(s)
GPS	global positioning system
h.	height
INSTAP	Institute for Aegean Prehistory
kg	kilogram(s)
km	kilometer(s)
L.	length
LM	Late Minoan
m	meter(s)
max.	maximum
mm	millimeter(s)
MM	Middle Minoan
NL	cataloged artifact from near the land
pres.	preserved
PSA	Pseira shipwreck petrographic analysis number
PSS	cataloged stone artifact from the Pseira shipwreck
ROV	remotely operated vehicle
SM	Siteia Archaeological Museum catalog number
th.	thickness
w.	width
wt.	weight

Illustration 1.1. Map of Crete, indicating locations of Bronze Age sites mentioned in this volume. Drawing E. Hadjidaki-Marder.